

North Fork

Conservation Opportunity Area



Ozark
Highlands



The North Fork River flows through Devil's Backbone Wilderness Area in Mark Twain National Forest.

Tom Stanton, Missouri Department of Conservation

Surrounded by oak and pine woodlands and forests, much of the North Fork of the White River is located within Mark Twain National Forest. Historically, pine-oak woodlands occupied high elevations and graded into oak-pine and mixed-oak forests in deep valleys. Today, dense second-growth forest is the dominant land cover with scattered pine plantations. Overgrown glade openings line cliff tops and exposed slopes. Most riparian corridors are protected, land conversion is minimal and forest harvests are managed with Best Management Plans.

Caves, springs, sinkholes and losing streams are prominent features of the North Fork Conservation Opportunity Area (COA). The two largest springs in the watershed are Double (Rainbow) and North Fork springs. Both springs emerge close together on the lower part of the river. Water quality in the North Fork River is considered good, but the potential for groundwater

pollution is a general concern. Over 75 kinds of fish inhabit the river. Prominent sport fish include smallmouth bass, largemouth bass and introduced rainbow and brown trout. The Ozark hellbender, an aquatic salamander, lives in the North Fork River; their numbers are declining. Other aquatic species of conservation concern include checkered madtoms and Ozark shiners.

The Nature Conservancy and Missouri Department of Conservation have independently identified the North Fork River and its surrounding landscapes as aquatic and terrestrial focus areas. Audubon Missouri and the Central Hardwoods Joint Venture selected the North Fork COA for its importance to woodland and forest birds. A portion of the COA has also been identified as a Mark Twain National Forest Ecosystem Management Area.

North Fork Conservation Strategies

- Increase the connectivity of glades, savannas and woodlands.
- Increase pine-oak woodland management as recommended in the Mark Twain National Forest Land and Resource Management Plan.
- Maintain existing 95% forested riparian corridor.
- Establish riparian buffers for 75% of cave entrances and spring branches.
- Reduce or eliminate impacts from invasive plants on 50% of natural and restored communities.
- Increase managed forest acres and forest connectivity on private lands.
- Conduct landowner contact programs, emphasizing riparian landowners.
- Increase use of long-term and permanent conservation easements.
- Implement recovery plan objectives for hellbenders.
- Develop and implement management plans for springs and river accesses.
- Reduce erosion, sedimentation and water pollution from cattle, gravel roads and forest land conversion.



Tom Stanton, Missouri Department of Conservation

*After several months of low rainfall, North Fork river levels drop, exposing large **gravel bars** that quickly revegetate.*

Priority Research and Inventory Needs

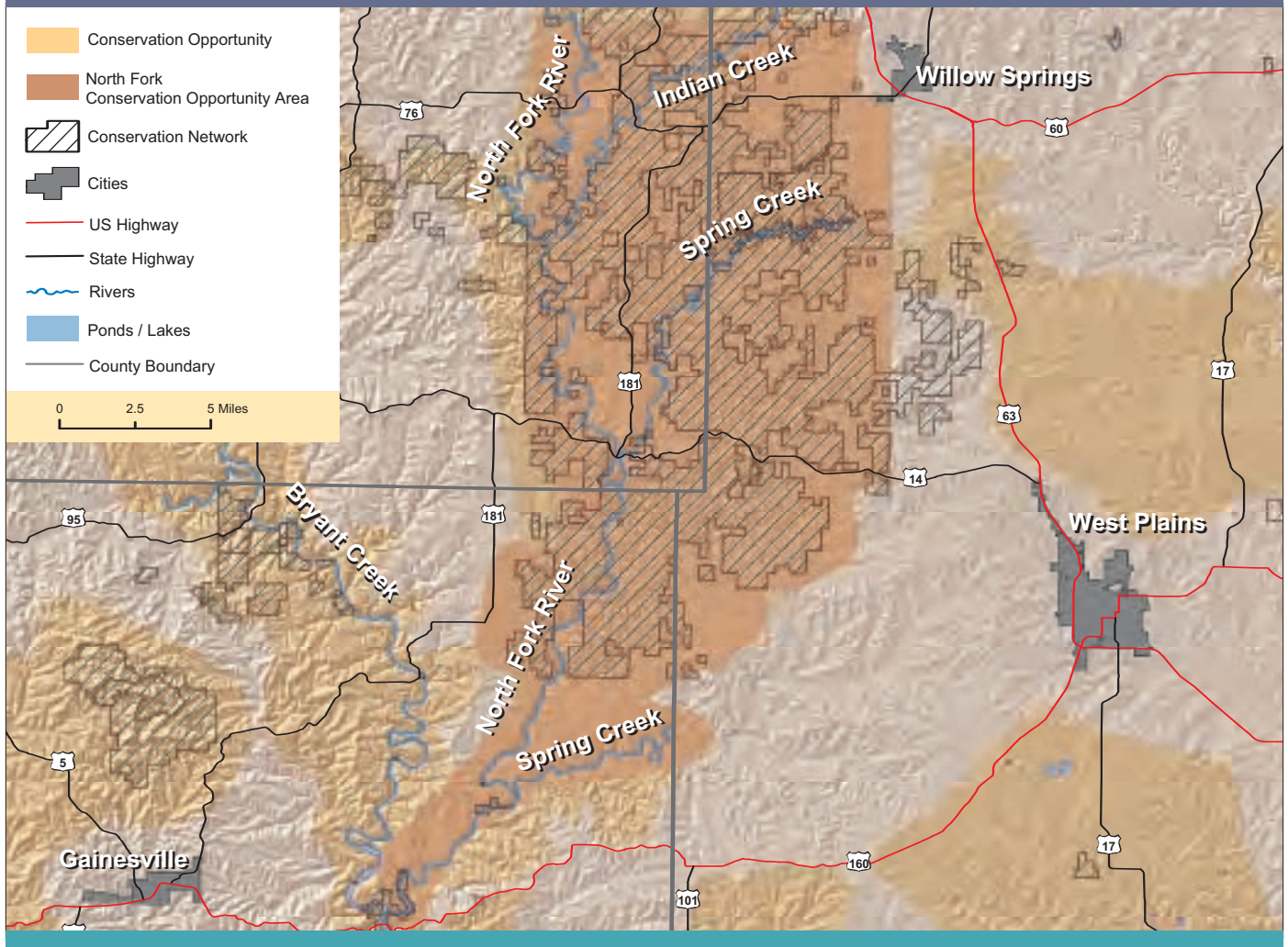
- Conduct a biological inventory of the North Fork COA.
- Use satellite and aerial imagery to review forest cover.
- Establish a baseline for water quality.
- Establish a baseline for measuring sedimentation of streams; determine the impacts of sedimentation on stream health.
- Locate sinkholes, losing streams and other natural features that impact North Fork's water quality.
- Document spring recharge areas.

Conservation Partners

Existing: Ozark Regional Land Trust; National Wild Turkey Federation (NWTf); Missouri State University's Bull Shoals Field Station; Missouri Department of Conservation (MDC); U.S. Forest Service (USFS)

Potential: Central Hardwoods Joint Venture; Missouri Audubon; Greater Ozarks Audubon Society; The Nature Conservancy – Missouri Chapter; Missouri Conservation Heritage Foundation (MCHF); St. Louis Zoo; Wonders of Wildlife; Bass Anglers Sportsman Society; Trout Unlimited; U.S. Fish and Wildlife Service; Natural Resources Conservation Service

North Fork Conservation Opportunity Area



Funding Sources

Existing: USFS annual budget; MDC annual budget; NWTF Wild Turkey Super Fund

Promising Future Sources: MDC Landowner Incentive Program; MDC State Wildlife Grants; MDC Wildlife Diversity Funds; MDC Forest Legacy Program; Missouri Bird Conservation Initiative Grants; MCHF Stream Stewardship Trust Funds; MCHF Grants; USACE Section 1135 Program

Existing Conservation Network

Mark Twain National Forest – Willow Springs District (Devil's Backbone Wilderness Area, Carman Springs Natural Area); Norfork Lake; Patrick Bridge Access; Hebron Access; Blair Bridge Access

The ovenbird is a forest interior bird. It nests in large tracts of upland forest.



Jim Rathert, Missouri
Department of
Conservation

Ozark Hellbenders



The Ozark hellbender is a large aquatic salamander found only in south central Missouri and north central Arkansas. They need cool, clear, unpolluted water to survive, making them an indicator of overall river health.

Jeff Briggler, Missouri Department of Conservation

Conservation Challenges

The North Fork Conservation Opportunity Area provides an excellent opportunity for oak and pine woodland and forest management. Potential obstacles to conservation success include lack of staff time, development pressure along the river,

landowner resistance, invasive and exotic plants, U.S. Forest Service policy on exotic plants, water quality outside the COA and the need to improve communication and coordination among non-profit partners.

To learn more about the North Fork Conservation Opportunity Area, please contact:



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